

Remarks

The Invention

Wood preservatives in current use are corrosive to metal balusters even if painted. In the past metal balusters were set in sockets drilled into upper and lower rails of a railing as shown in applicant's earlier patent No. 6,394,422. Because of a change in the preservatives used for wood, this arrangement is no longer entirely satisfactory.

The present invention solves the problem by providing a body of a particular shape that fits into the ends of the metal balusters. The body sits upon a flat disk and is attached to the rails with a fastener such as a screw, nail or the like. The body and the disk comprise a connector for attaching and isolating the baluster.

The body of applicant's connector includes upper and lower frustums joined together at their bases. According to Webster's New World College Dictionary, Third Edition, a "frustum" is a "solid figure consisting of the bottom part of a cone or pyramid, the top of which has been cut off by a plane parallel to the base." The shape of applicant's body facilitates mounting the balusters when the rails are horizontal (Fig. 6) or angled in a stairway (Fig. 7). The disks are sized such that the ends of the balusters are seated on the disks so that the disks form a corrosion barrier between the baluster and the wood rails.

The Office Action

In the subject Office action, applicant's claims 10-15 were allowed. Applicant's claims 1-6 were rejected as being anticipated by U.S. patent No. 4,403,767 to Basey. It is believed that applicant's original claims do not read on Basey. Applicant, however, has amended them to further distinguish them over the reference. Applicant's claims 7-9 were rejected as anticipated by U.S. patent No. 6,394,422 to Jones et al. It is believed that applicant's original claims do not read on the Jones et al. patent. A section 112 rejection has been addressed by amendment.

The Basey Patent

Basey describes a first member 30 which he calls a plug for use with a second member 32 which he calls a socket. In an embodiment shown in Fig. 8, one end of the plug has three stacked conical sections 46, 48 and 50 and the other end 42 of which is cylindrical. In an embodiment shown in Fig. 12, both ends of Basey's plug are cylindrical.

For comparison with applicant's connector, Figs. 8 and 9 from Basey and Fig. 6 from the subject application are reproduced below. Figs. 8 and 9 are inverted such that they correspond with applicant's "upper" and "lower frustum" terminology, it being understood that the directions "upper" and "lower" are arbitrary.

Fig. 8

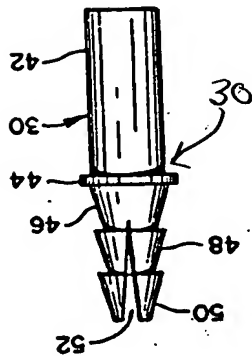
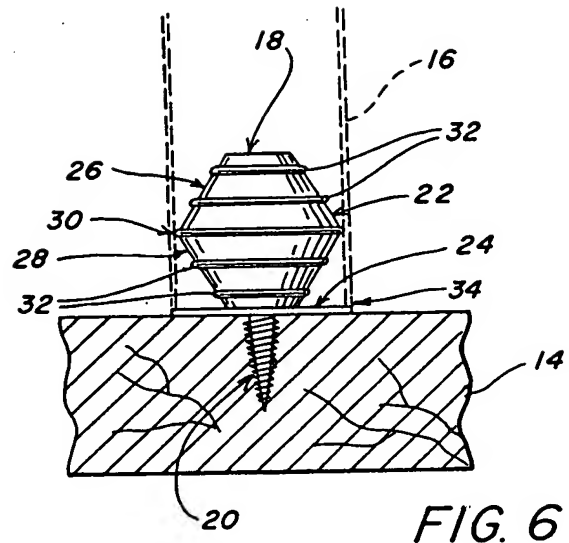
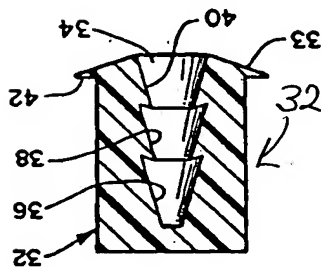


Fig. 6



The Patent Office took stacked conical sections 46, 48, and 50 of Basey as being identical to (which is necessary for a Section 102(b) rejection) applicant's lower frustum 28. While Basey's section 46 is frustoconical, the overall structure including sections 48 and 50 is cylindrical and stepped so that Basey's plug 30 and socket 32 snap together (column 4, line 44). It is believed that there is no motivation to eliminate Basey's sections 48 and 50 as the stepped formation is necessary for the members to snap together without the necessity for adhesive (column 4, line 45).

Applicant further traverses the characterization of Basey's section 42 as a frustum. Section 42, according to Basey, is "a generally cylindrical axial

section" (column 3, line 66). A section 102(b) rejection is improper because Basey's section 42 does not meet the requirements of applicant's claims wherein applicant's upper frustum 26 is the bottom part of a cone. Basey shows a cylinder, a cylinder would not be suitable for applicant's purpose. As shown in Fig. 7, the configuration of applicant's body (two frustums arranged base-to-base) is necessary for the use of the connector on a stairway. If either the upper or the lower frustum were converted into a cylinder, the body would need to be modified to be used as a connector on a stairway, whereas applicant's body may be used for both applications without modification.

In the office action, Basey's socket 32 is construed as a disk. While it is believed that Basey's socket 32 is not a disk, applicant has further amended the claims. The claims now additionally require that the flat top of lower frustum 28 be mounted on the flat disk. In Basey, stacked sections 46, 48 and 50 are received in socket 32, not under the top of the lower frustum in the sense of applicant's construction. It is also believed that there is no motivation to convert Basey's socket 32 into a flat disk because a socket is essential to Basey for plug 30 to be received in socket 32.

In view of the above, it is believed that applicant's claims 1-6 are not anticipated by Basey (Section 102(b)) or made obvious (Section 103) in view of his disclosure.

Applicant's Earlier Patent

In the Jones et al. patent, metal balusters 12 are set into holes 16 drilled into upper and lower rails 18, 20. A screw 52 may be driven through the upper rail into hole 16 for securing the baluster. As described in this patent, balusters 12 and screws 52 are in contact with the wood. At the time the '422 patent was applied for, corrosion was not a problem but as outlined in the present application, it has become a problem because the preservatives now used for wood tend to corrode the balusters.

The '422 patent does not have "means for protecting the hollow metal baluster from the corrosive effects of the wood preservative" which are "placed between the ends of the hollow metal balusters and the top and bottom rails." In the '422 patent, the balusters are seated in wood sockets and nothing protects the balusters or screws from the wood preservative. The "means" claimed in claim 7 of the present application are those shown and described in the application (body 22 and flat disk 24) and their equivalents. Such a means element is lacking from the '422 patent so there is no basis for the Office's section 102(b) rejection.


Claim 7 is not a product-by-process claim. It is a structural claim. Section 112, paragraph 6, describes claim language in which, an element is "expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof." In most cases, a patentee will use the term "means" followed by a description of a function. In claim 7, applicant claims "means for protecting the hollow metal baluster from the corrosive effects of

the wood preservative" which are "placed between the ends of the hollow metal balusters and the top and bottom rails."

In view of the above, it is believed that applicant's claims 7-9 are not anticipated by Jones et al. (Section 102(b)) or made obvious (Section 103) in view of the disclosure. As to the Section 112 rejection of claims 7-9, applicant has responded by amendment. In claim 7, the term "chemical preserving means" has been changed to "wood preservative" which has antecedent basis in the claim.

In view of the above amendments and remarks it is believed that claims 1-9 are in condition for allowance along with claims 10-15 which have been previously allowed. Reconsideration of the application and allowance of all claims are respectfully requested.


Respectfully submitted,


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 30, 2004.


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